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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/895,703	06/29/2001	Jeff Zentner	10014498-1	6469

7590 11/30/2004

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EXAMINER

CERVETTI, DAVID GARCIA

ART UNIT	PAPER NUMBER
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2136

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/895,703

**Applicant(s)**

ZENTNER ET AL.

**Examiner**

David G. Cervetti

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2001.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-18 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 29 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: page 5, lines 19, reference character 34, perhaps reference character 38 was intended. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: figure 2, reference characters 38, 42, 44; the description of figure 3 refers to columns 0-3, no description is given of column 4, figure 3 is described as "a one to one correspondence for each of the keys 16", however it does not appear to be a one to one correspondence. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid

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abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The disclosure is objected to because of the following informalities: page 6, line 10, states "that more than key".

Appropriate correction is required.

The abstract of the disclosure is objected to because it exceeds 150 words in length. Correction is required. See MPEP § 608.01(b).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Kwon et al.

Regarding claim 1, Kwon et al. teach a key-pad device comprising: a key-pad including a plurality of keys (column 2, lines 67-68, column 3, lines 1-5); and a key-pad

controller providing a key value signal when one of the keys is activated (column 3, lines 1-10), said controller determining which key is activated by a process including a predetermined number of steps (column 3, lines 1-23), wherein the process has the same number of steps regardless of which key is activated (column 3, lines 27-59).

Regarding claim 3, Kwon et al. teach the device according to claim 1 wherein the plurality of keys are arranged in a plurality of rows and a plurality of columns (column 2, lines 61-68, column 3, lines 1-5).

Regarding claim 4, Kwon et al. teach the device according to claim 3 wherein the controller determines if more than one key has been activated in more than one column (column 3, lines 42-59).

Regarding claim 5, Kwon et al. teach the device according to claim 4 wherein the controller adds a counter value to a counter if a key is activated in a column (column 3, lines 60-68), and wherein the controller determines which column is being monitored for a key activation by a set bit in a digital word (column 3, lines 49-55).

Regarding claim 6, Kwon et al. teach the device according to claim 3 wherein the controller determines which key has been activated on a row-by-row basis (column 3, lines 60-68, column 4, lines 22-29, 60-68, column 5, lines 1-12).

Regarding claim 7, Kwon et al. teach the device according to claim 6 wherein each key is assigned a predetermined key press value, said controller adding the key press values of activated keys (column 1, lines 59-62, column 3, lines 1-10).

Regarding claim 8, Kwon et al. teach the device according to claim 7 wherein the controller compares the added key values to a predetermined value to determine if multiple keys have been activated (column 4, lines 9-21, 43-66).

Regarding claim 9, Kwon et al. teach the device according to claim 7 wherein the controller subtracts the added key value from a predetermined value to calculate a key value to be transmitted (column 1, lines 59-62, column 3, lines 1-22).

Regarding claim 10, Kwon et al. teach a key-pad device for transferring a key value representative of a key press to a terminal, said device comprising (column 2, lines 61-68): a key-pad including a plurality of keys arranged in a plurality of rows and a plurality of columns (column 2, lines 61-68, column 3, lines 1-5); and a key-pad controller outputting the key value to the terminal when one of the keys is pressed (column 3, lines 1-10), said controller determining the key that is pressed by a process including a predetermined number of steps (column 3, lines 1-23), where the number of steps is the same regardless of which key is pressed (column 3, lines 27-59), said controller determining if more than one key has been pressed in more than one column (column 3, lines 42-59), and then if only one key has been pressed, determining which key has been pressed on a row-by-row basis (column 3, lines 60-68, column 4, lines 22-29, 60-68, column 5, lines 1-12) by adding key press values for each key that is pressed (column 1, lines 59-62, column 3, lines 1-10).

Regarding claim 11, Kwon et al. teach the device according to claim 10 wherein the controller adds a counter value to a counter if a key is pressed in a column (column 3, lines 60-68), and wherein the controller determines that more than one key has been

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pressed in more than one column (column 3, lines 42-59) if the counter value in the counter is greater than a predetermined value (column 4, lines 9-14).

Regarding claim 12, Kwon et al. teach the device according to claim 10 wherein the controller adds the key press value for each key pressed in a particular row before moving on to a next row (column 3, lines 2-10).

Regarding claim 13, Kwon et al. teach the device according to claim 10 wherein the controller compares the added key value to a predetermined value to determine if multiple keys have been pressed (column 4, lines 9-21, 43-66).

Regarding claim 14, Kwon et al. teach the device according to claim 10 wherein the controller subtracts the added key value from a predetermined value to determine the key value to be transmitted to the terminal (column 1, lines 59-62, column 3, lines 1-22).

Regarding claim 15, Kwon et al. teach a method of determining which key of a key-pad device having a plurality of keys arranged in a plurality of rows and a plurality of columns has been pressed (column 2, lines 61-68, column 3, lines 1-5), comprising: assigning each key a key press value (column 4, lines 30-35); determining if a key has been pressed in one of the columns (column 3, lines 60-68, column 4, lines 1-8); advancing a counter by a counter value if a key has been pressed (column 3, lines 60-68); determining if a key has been pressed in a next column and adding the counter value to the counter if a key has been pressed, otherwise keeping the counter value the same (column 3, lines 60-68); adding the key press value of all of the keys that have been pressed in a first row to generate a first row added key value (column 3, lines 3-5);

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adding the key press value of all of the keys that have been pressed in a second row and adding the added key press values of the second row to the added key value (column 3, lines 3-5); determining whether the added key value exceeds a predetermined value (column 3, lines 60-65); and transferring the key value from the key-pad device if the added key value does not exceed the predetermined value (column 4, lines 30-42).

Regarding claim 16, Kwon et al. teach the method according to claim 15 wherein the key-pad includes four rows and four columns (column 2, lines 65-68, column 3, lines 1-5), and wherein advancing the counter for each pressed key in each column is performed for all four columns (column 3, lines 8-11), and wherein adding the key press values for all of the keys is performed for all four of the rows (column 3, lines 2-5).

Regarding claim 17, Kwon et al. teach the method according to claim 15 further comprising subtracting the added key value from a predetermined value to calculate the key value that is transmitted (column 4, lines 67-68, column 5, lines 1-12).

Regarding claim 18, Kwon et al. teach the method according to claim 15 wherein determining if a key has been pressed in one of the columns includes setting a set bit for a particular column if a key has been pressed in that column (column 3, lines 49-55).



***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kwon et al. as applied to claim 1 above, and further in view of De Jesus et al.

Regarding claim 2, Kwon et al. teach the limitations as set forth under claim 1 above. However, Kwon et al. do not disclose expressly the device according to claim 1 further comprising a display and a magnetic strip reader.

De Jesus et al. teach the device according to claim 1 further comprising a display and a magnetic strip reader (column 3, lines 50-65).

Kwon et al. and De Jesus et al. are analogous art because they are directed to a similar problem solving area, keypad devices.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to add a display and a magnetic strip reader to the keypad scan.

Therefore, it would have been obvious to a person of ordinary skill in the art to combine the teachings of De Jesus et al. with the method of Kwon et al. for the benefit of keypad devices to obtain the invention as specified in claim 2.

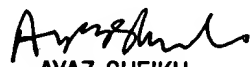
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David G. Cervetti whose telephone number is (571) 272-5861. The examiner can normally be reached on Monday-Friday 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DGC

  
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